AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listing of claims in the application. Fees in the amount of $18.00 are included for the additional claims as follows:

Net Change in total claims: 2 @ $9.00 =	$18.00
Net Change in independent claims: 2 @ $0 =	$ 0.00
Total Fee paid:	$18.00

LISTING OF CLAIMS:

Claim 1. (Currently amended)

A camshaft for use in an engine, comprising:

a. a plurality of bearing means, wherein each of said bearing means has a corresponding lubrication supply conduit;

b. a hollow camshaft rotatably journalled in said plurality of bearing means; ~~and~~

c. a plurality of camshaft lubrication supply ducts, wherein each said camshaft lubrication supply duct traverses a journal surface of said hollow camshaft and an interior surface of said hollow camshaft, and wherein each said camshaft lubrication supply duct rotatably aligns with said corresponding lubrication supply conduit, whereby lubricant transfers from said corresponding lubrication supply conduit to the interior of said hollow camshaft and thereby establishes a significant pressure gradient in the ~~the~~ interior of said hollow camshaft;

d. a first cam lobe having a cam surface, wherein said first cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft;

e. a first cam surface lubrication supply duct traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft wherein said first cam surface lubrication supply duct has an aperture located on said interior surface of

said hollow camshaft, and wherein said aperture is located outside said significant pressure gradient;

f. a second cam lobe having a cam surface, wherein said second cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft; and

g. a second cam surface lubrication supply duct traversing said cam surface of said second cam lobe and said interior surface of said hollow camshaft,

wherein said first cam surface lubrication supply duct traversing said first cam lobe has an aperture located on said interior surface of said hollow camshaft, wherein said second cam surface lubrication supply duct traversing said second cam lobe has an aperture located on said interior surface of said hollow camshaft, wherein said camshaft lubrication supply duct has an aperture located on said interior of said hollow camshaft, and wherein said aperture located on said interior surface of said first cam lobe and said aperture located on said interior surface of said second cam lobe have an angular displacement about the rotation axis of said hollow camshaft approximately bisected by said aperture of said camshaft lubrication supply duct located on said interior of said hollow camshaft.

Claim 2. (Canceled)

Claim 3. (Canceled)

Claim 4. (Canceled)

Claim 5. (Currently amended)

A camshaft as described in ~~claim 4~~ claim 1, further comprising:

a. a second cam surface lubrication supply duct traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft; and

b. a second cam surface lubrication supply duct traversing said cam surface of said second cam lobe and said interior surface of said hollow camshaft.

Claim 6. (Previously presented)

A camshaft as described in claim 5, wherein said first cam surface lubrication supply duct has a first aperture location on said interior surface, and wherein said second cam surface lubrication supply duct has a second aperture location on said interior surface, and wherein the circumference of said aperture having said first aperture location and the circumference of said aperture having said second aperture location are separated by a distance of not less than about one aperture diameter.

Claim 7. (Canceled)

Claim 8. (Currently amended)

A camshaft as described in ~~claim 7~~ claim 1, wherein each said cam surface lubrication supply duct is differentially configured to supply an amount of lubricant to substantially equalize wear of a plurality of cam surfaces.

Claim 9. (Original)

A camshaft as described in claim 8, further comprising a seal element coupled to an end of said hollow camshaft, wherein said seal element has a vent hole communicating between the interior surface and the exterior surface of said seal element.

Claim 10. (Original)

A camshaft as described in claim 9, wherein said vent hole has a location along the longitudinal axis of said hollow camshaft.

Claim 11. (Original)

A camshaft as described in claim 10, further comprising a lubrication pressurization element coupled to said lubrication supply conduit.

Claim 12. (Original)

A camshaft as described in claim 11, further comprising a lubricant responsive to said lubrication pressurization element.

Claim 13. (Currently amended)

A camshaft as described in ~~claims 1, 4, 6 or 7~~ claim 1 or 6 further comprising:

a. a block having a least one cylinder;

b. a reciprocal means slidingly engaged to [[the]] a surface of said cylinder;

c. a reciprocal movement to rotational movement conversion element rotatably responsive to said reciprocal means and rotatably ~~journal led~~ journalled in bearings;

d. a cylinder head coupled to said block;

e. at least two conduits communicating with each of said at least one cylinder; and

f. at least one valve coupled to each of said at least two conduits, wherein said at least one valve is operationally responsive to said cam surface of said cam lobe of said hollow camshaft.

Claim 14. (Currently amended)

A camshaft as described in claim 13, wherein said engine comprises an automobile engine used in an automobile.

Claim 15. (Currently amended)

A camshaft as described in claim 13, wherein said engine comprises an aircraft engine used in an aircraft.

Claims 16-25. (Canceled)

Claim 26. (New)

A camshaft for use in an aircraft engine, comprising:

a. a plurality of bearing means, wherein each of said bearing means has a corresponding lubrication supply conduit;

b. a hollow camshaft rotatably journalled in said plurality of bearing means; and

c. a plurality of camshaft lubrication supply ducts, wherein each said camshaft lubrication supply duct traverses a journal surface of said hollow camshaft and an interior surface of said hollow camshaft, and wherein each said camshaft lubrication supply duct rotatably aligns with said corresponding lubrication supply conduit, whereby lubricant transfers from said corresponding lubrication supply conduit to the interior of said hollow camshaft and thereby establishes a significant pressure gradient in the interior of said hollow camshaft;

d. a first cam lobe having a cam surface, wherein said first cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft;

e. a first cam surface lubrication supply duct traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft wherein said first cam surface lubrication supply duct has an aperture located on said interior surface of said hollow camshaft, and wherein said aperture is located outside said significant pressure gradient;

f. a block having a least one cylinder;

g. a reciprocal means slidingly engaged to a surface of said cylinder;

h. a reciprocal movement to rotational movement conversion element rotatably responsive to said reciprocal means and rotatably journalled in bearings;

i. a cylinder head coupled to said block;

j. at least two conduits communicating with each of said at least one cylinder; and

k. at least one valve coupled to each of said at least two conduits, wherein said at least one valve is operationally responsive to said cam surface of said cam lobe of said hollow camshaft.

Claim 27. (New)

A camshaft as described in claim 26, further comprising a second cam lobe having a cam surface, wherein said second cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft.

Claim 28. (New)

A camshaft as described in claim 27, further comprising a second cam surface lubrication supply duct traversing said cam surface of said second cam lobe and said interior surface of said hollow camshaft.

Claim 29. (New)

A camshaft as described in claim 28, wherein said first cam surface lubrication supply duct traversing said first cam lobe has an aperture located on said interior surface of said hollow camshaft, wherein said second cam surface lubrication supply duct traversing said second cam lobe has an aperture located on said interior surface of said hollow camshaft, wherein said camshaft lubrication supply duct has an aperture located on said interior of said hollow camshaft, and wherein said aperture located on said interior surface of said first cam lobe and said aperture located on said interior surface of said second cam lobe have an angular displacement about the rotation axis of said hollow camshaft approximately bisected by said aperture of said camshaft lubrication supply duct located on said interior of said hollow camshaft.

Claim 30. (New)

A camshaft as described in claim 29, further comprising:

a. a second cam surface lubrication supply duct traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft; and

b. a second cam surface lubrication supply duct traversing said cam surface of said second cam lobe and said interior surface of said hollow camshaft.

Claim 31. (New)

A camshaft as described in claim 30, wherein said first cam surface lubrication supply duct has a first aperture location on said interior surface, and wherein said second cam surface lubrication supply duct has a second aperture location on said interior surface, and wherein the circumference of said aperture having said first aperture location and the circumference of said aperture having said second aperture location are separated by a distance of not less than about one aperture diameter.

Claim 32. (New)

A camshaft as described in claim 26, wherein each said cam surface lubrication supply duct is differentially configured to supply an amount of lubricant to substantially equalize wear of a plurality of cam surfaces.

Claim 33. (New)

A camshaft as described in claim 32, further comprising a seal element coupled to an end of said hollow camshaft, wherein said seal element has a vent hole communicating between the interior surface and the exterior surface of said seal element.

Claim 34. (New)

A camshaft as described in claim 33, wherein said vent hole has a location along the longitudinal axis of said hollow camshaft.

Claim 35. (New)

A camshaft as described in claim 34, further comprising a lubrication pressurization element coupled to said lubrication supply conduit.

Claim 36. (New)

A camshaft as described in claim 35, further comprising a lubricant responsive to said lubrication pressurization element.

Claim 37. (New)

A camshaft, comprising:

a. a plurality of bearing means, wherein each of said bearing means has a corresponding lubrication supply conduit;

b. a hollow camshaft rotatably journalled in said plurality of bearing means; and

c. a plurality of camshaft lubrication supply ducts, wherein each said camshaft lubrication supply duct traverses a journal surface of said hollow camshaft and an interior surface of said hollow camshaft, and wherein each said camshaft lubrication supply duct rotatably aligns with said corresponding lubrication supply conduit, whereby lubricant transfers from said corresponding lubrication supply conduit to the interior of said hollow camshaft and thereby establishes a significant pressure gradient in the interior of said hollow camshaft;

d. a first cam lobe having a cam surface, wherein said first cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft;

e. a first cam surface lubrication supply duct traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft wherein said first cam surface lubrication supply duct has an aperture located on said interior surface of said hollow camshaft, and wherein said aperture is located outside said significant pressure gradient.